

IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

In accordance with the following, claims 1, 6 and 16-23 have been amended, claims 2-5 have been cancelled, and claims 33-53 have been added. No new matter has been added by way of the new claims or the amendments.

1. (currently amended) A planning support program for supporting planning of a vehicle, said program making a computer execute:

an exterior model building step of building an exterior model that expresses an outer appearance of the vehicle by reading out an exterior parameter group associated with an exterior shape of a vehicle, and changing exterior parameters included in the readout exterior parameter group;

an interior model building step of building an interior model that expresses interior comfort of passengers by inputting passenger parameters associated with sitting states of the passengers in the vehicle; and

a display step of superimposing the exterior model built in the exterior model building step, and the interior model built in the interior model building step,

wherein in said exterior model building step, the exterior model is changed on the basis of vehicle specification values associated with exterior dimensions of the vehicle, while in said interior model building step, the interior model is not changed in conjunction with the vehicle specification values.

wherein in the display step, it is distinguishably displayed whether or not the exterior model and the interior model interfere with each other, and

wherein each of the displayed exterior model and interior model are independently adjustable.

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)
6. (currently amended) The program according to claim 21, wherein the display step includes a step of transparently displaying a vehicle shape as a combination of the exterior model and the structure model to identifiably display whether or not the vehicle shape and the interior model interfere with each other.
7. (original) The program according to claim 1, wherein the interior model building step includes a step of building the interior model by reading out and deforming human type models that express the passengers and seat models that express seats in accordance with the passenger parameters.
8. (original) The program according to claim 7, wherein the interior building step includes a step of building the interior model by inputting the number of seats as the passenger parameter, and combining the human type models and the seat models corresponding to the number of seats.
9. (original) The program according to claim 7, wherein the interior building step includes a step of building the interior model using sitting positions of the passengers for respective seats input as the passenger parameters.
10. (original) The program according to claim 7, wherein the interior building step includes a step of building the interior model using sitting postures of the passengers input as the passenger parameters.
11. (original) The program according to claim 7, wherein the human type model set at a driver's seat of the vehicle includes eye point information and visibility assurance reference range information indicating a reference range to be assured as visibility from the eye point.
12. (original) The program according to claim 11, wherein the interior model has position information of a predetermined portion of the vehicle, which is specified by the reference range.
13. (original) The program according to claim 12, wherein the predetermined portion of the vehicle includes at least one of a front header, rear header, pillar, and windshield lower end portion.

14. (original) The program according to claim 7, wherein the interior model has position information of a predetermined portion of the vehicle associated with oppressive feelings experienced by the passengers, and the position information is specified by positions of the human type models.

15. (original) The program according to claim 14, wherein the predetermined portion of the vehicle includes at least one of a front header, rear header, pillar, and windshield lower end portion.

16. (currently amended) The program according to claim 21, wherein the structure parameters include information associated with a sectional shape of the framework of the vehicle.

17. (currently amended) The program according to claim 21, wherein the structure parameters include information associated with a mechanical strength of the framework.

18. (currently amended) The program according to claim 21, wherein the structure parameters include information associated with a weight of the framework.

19. (currently amended) The program according to claim 21, wherein the structure parameters include information associated with a material of the framework.

20. (currently amended) The program according to claim 21, wherein the structure parameters include information associated with a thickness of a steel plate used in the framework.

21. (currently amended) The program according to claim 21, wherein the framework includes at least one of a front pillar, center pillar, rear pillar, side roof rail, front header, and rear header.

22. (currently amended) The program according to claim 21, wherein the structure model building step includes a step of building the structure model by selectively reading out one of a plurality of structure parameter groups prepared for respective vehicle types.

23. (currently amended) The program according to claim 21, wherein a shape of the framework which forms the structure model changes in correspondence with a shape of the exterior model.

24. (original) A planning support method for supporting planning of a vehicle using a computer, comprising:

an exterior model building step of building an exterior model that expresses an outer appearance of the vehicle by reading out an exterior parameter group which is prepared in a database and associated with an exterior shape of a vehicle, and changing exterior parameters included in the readout exterior parameter group;

an interior model building step of building an interior model that expresses interior comfort of passengers by inputting passenger parameters associated with sitting states of the passengers in the vehicle; and

a display step of superimposing, on a display, the exterior model built in the exterior model building step, and the interior model built in the interior model building step.

25. (original) The method according to claim 24, wherein the interior model building step includes a step of building the interior model by reading out and deforming human type models that express the passengers and seat models that express seats in accordance with the passenger parameters.

26. (original) The method according to claim 24, further comprising:

a structure model building step of building a structure model by reading out a structure parameter group associated with a structure of a framework of the vehicle, and adjusting structure parameters included in the readout structure parameter group, and

wherein the display step includes a step of superimposing the structure model built in the structure model building step on the exterior model and the interior model.

27. (original) A planning support apparatus for supporting planning of a vehicle, comprising:

exterior model building means for building an exterior model that expresses an outer appearance of the vehicle by reading out an exterior parameter group associated with an exterior shape of a vehicle, and changing exterior parameters included in the readout exterior parameter group;

interior model building means for building an interior model that expresses interior comfort of passengers by inputting passenger parameters associated with sitting states of the passengers in the vehicle; and

display means for superimposing the exterior model built by said exterior model building means, and the interior model built by said interior model building means.

28. (original) The apparatus according to claim 27, wherein said interior model building means builds the interior model by reading out and deforming human type models that express the passengers and seat models that express seats in accordance with the passenger parameters.

29. (original) The apparatus according to claim 27, further comprising:
structure model building means for reading out a structure parameter group associated with a structure of a framework of the vehicle, and building a structure model by adjusting structure parameters included in the readout structure parameter group, and
wherein said display means superimposes the exterior model built by said exterior model building means, the interior model built by said interior model building means, and the structure model built by said structure model building means.

30. (original) A planning support system for supporting planning of a vehicle, comprising:
a database for storing a plurality of exterior parameter groups associated with exterior shapes of a vehicle;
selection means for selecting one of the exterior parameter groups from said database;
exterior model building means for building an exterior model that expresses an outer appearance of the vehicle by changing exterior parameters included in the selected exterior parameter group;
input means for inputting passenger parameters associated with sitting states of passengers in the vehicle;
interior model building means for building an interior model that expresses interior comfort of the passengers on the basis of the input passenger parameters; and
display means for superimposing the exterior model built by said exterior model building means, and the interior model built by said interior model building means.

31. (original) The system according to claim 30, wherein said interior model building means builds the interior model by reading out and deforming human type models that express the passengers and seat models that express seats in accordance with the passenger parameters.

32. (original) The system according to claim 30, wherein said database further stores a plurality of structure parameter groups associated with structures of frameworks of the vehicle, said planning support system further comprises: selection means for selecting one of the

structure parameter groups from said database; and structure model building means for building a structure model by adjusting structure parameters included in the selected structure parameter group, and said display means superimposes the exterior model built by said exterior model building means, the interior model built by said interior model building means, and the structure model built by said structure model building means.

33. (new) A planning support program for supporting planning of a vehicle, said program making a computer execute:

an exterior model building step of building an exterior model that expresses an outer appearance of the vehicle by reading out an exterior parameter group associated with an exterior shape of a vehicle, and changing exterior parameters included in the readout exterior parameter group;

an interior model building step of building an interior model that expresses interior comfort of passengers, by reading out human type models and seat models in accordance with passenger parameters inputted from a user and associated with sitting states of the passengers in the vehicle;

a structure model building step of building a structure model by reading out a structure parameter group associated with a structure of a framework of the vehicle, and

a display step of superimposing the exterior model built in the exterior model building step and the interior model built in the interior model building step,

wherein the structure model is built by using a sectional shape of the framework of the vehicle, the sectional shape being set out as the structure parameters by the user.

34. (new) A planning support method for supporting planning of a vehicle using a computer, said method comprising:

an exterior model building step of building an exterior model that expresses an outer appearance of the vehicle by reading out from a database an exterior parameter group associated with an exterior shape of a vehicle, and changing exterior parameters included in the readout exterior parameter group;

an interior model building step of building an interior model that expresses interior comfort of passengers, by reading out from a database human type models and seat models in accordance with passenger parameters inputted from a user and associated with sitting states of the passengers in the vehicle;

a structure model building step of building a structure model by reading out from a database a structure parameter group associated with a structure of a framework of the vehicle;

and a display step of superimposing, on a display, the exterior model built in the exterior model building step and the interior model built in the interior model building step,

wherein the structure model is built by using a sectional shape of the framework of the vehicle, the sectional shape being set out as the structure parameters by the user.

35. (new) A planning support program for supporting planning of a vehicle, said program making a computer execute:

an exterior model building step of building an exterior model that expresses an outer appearance of the vehicle by reading out an exterior parameter group associated with an exterior shape of a vehicle, and changing exterior parameters included in the readout exterior parameter group;

a structure model building step of building a structure model by reading out a structure parameter group associated with a structure of a framework of the vehicle, and adjusting structure parameters included in the readout structure parameter group;

an interior model building step of building an interior model that expresses interior comfort of passengers by inputting passenger parameters associated with sitting states of the passengers in the vehicle; and

a display step of superimposing the exterior model built in the exterior model building step, the structure model built in the structure model building step and the interior model built in the interior model building step,

wherein the exterior and structure models are changed on the basis of vehicle specification values associated with exterior dimensions of the vehicle, while in said interior model building step, the interior model is not changed in conjunction with the vehicle specification values,

wherein in the display step, it is distinguishably displayed whether or not the exterior model and the interior model interfere with each other, and

wherein each of the displayed exterior model and interior model are independently adjustable.

36. (new) The program according to claim 35, wherein the display step includes a step of transparently displaying a vehicle shape as a combination of the exterior model and the structure model to identifiably display whether or not the vehicle shape and the interior model interfere with each other.

37. (new) The program according to claim 35, wherein the interior model building step includes a step of building the interior model by reading out and deforming human type models that express the passengers and seat models that express seats in accordance with the passenger parameters.

38. (new) The program according to claim 37, wherein the interior building step includes a step of building the interior model by inputting the number of seats as the passenger parameter, and combining the human type models and the seat models corresponding to the number of seats.

39. (new) The program according to claim 37, wherein the interior building step includes a step of building the interior model using sitting positions of the passengers for respective seats input as the passenger parameters.

40. (new) The program according to claim 37, wherein the interior building step includes a step of building the interior model using sitting postures of the passengers input as the passenger parameters.

41. (new) The program according to claim 37, wherein the human type model set at a driver's seat of the vehicle includes eye point information and visibility assurance reference range information indicating a reference range to be assured as visibility from the eye point.

42. (new) The program according to claim 41, wherein the interior model has position information of a predetermined portion of the vehicle, which is specified by the reference range.

43. (new) The program according to claim 42, wherein the predetermined portion of the vehicle includes at least one of a front header, rear header, pillar, and windshield lower end portion.

44. (new) The program according to claim 37, wherein the interior model has position information of a predetermined portion of the vehicle associated with oppressive feelings experienced by the passengers, and the position information is specified by positions of the human type models.

45. (new) The program according to claim 44, wherein the predetermined portion of the vehicle includes at least one of a front header, rear header, pillar, and windshield lower end portion.

46. (new) The program according to claim 35, wherein the structure parameters include information associated with a sectional shape of the framework of the vehicle.

47. (new) The program according to claim 35, wherein the structure parameters include information associated with a mechanical strength of the framework.

48. (new) The program according to claim 35, wherein the structure parameters include information associated with a weight of the framework.

49. (new) The program according to claim 35, wherein the structure parameters include information associated with a material of the framework.

50. (new) The program according to claim 35, wherein the structure parameters include information associated with a thickness of a steel plate used in the framework.

51. (new) The program according to claim 35, wherein the framework includes at least one of a front pillar, center pillar, rear pillar, side roof rail, front header, and rear header.

52. (new) The program according to claim 35, wherein the structure model building step includes a step of building the structure model by selectively reading out one of a plurality of structure parameter groups prepared for respective vehicle types.

53. (new) The program according to claim 35, wherein a shape of the framework which forms the structure model changes in correspondence with a shape of the exterior model.